

6DX8

High-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Center Values*):

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3 . . .	0.720	amp
Peak heater-cathode voltage		

(Each unit):

Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 max.	volts

Direct Interelectrode Capacitances:^a

Triode Unit:

Grid to plate	2.7	μf
Grid to all other elements except plate	4.0	μf
Plate to all other elements except grid	2.3	μf
Grid to heater	0.1 max.	μf

Pentode Unit:

Grid No.1 to plate	0.1 max.	μf
Grid No.1 to all other elements except plate	9.0	μf
Plate to all other elements except grid No.1	4.5	μf
Grid No.1 to heater	0.1 max.	μf
Triode plate to pentode grid No.1 .	0.01 max.	μf
Triode grid to pentode grid No.1 .	0.01 max.	μf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit			
Plate Voltage	200	170	200	220	volts
Grid-No.2 Voltage	—	170	200	220	volts
Grid-No.1 Voltage	-1.7	-2.1	-2.9	-3.4	volts
Amplification Factor	65	—	—	—	
Mu Factor, Grid No.2 to Grid No.1	—	36	36	36	
Plate Resistance (Approx.) .	—	0.1	0.13	0.15	megohm
Transconductance	4000	11000	10400	10000	μmhos
Plate Current	3	18	18	18	ma
Grid-No.2 Current	—	3	3	3	ma

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"



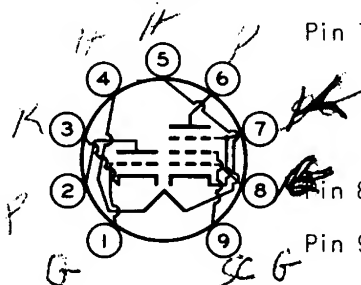
RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA
9-62

6DX8

Length, Base Seat to Bulb Top (Excluding tip) . . . 2" $\pm$ 3/32"
 Diameter 0.750" to 0.875"
 Dimensional Outline See *General Section*
 Bulb T6-1/2
 Base Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW 9HX

Pin 1 - Triode
 Grid
 Pin 2 - Triode
 Plate
 Pin 3 - Triode
 Cathode
 Pin 4 - Heater
 Pin 5 - Heater
 Pin 6 - Pentode
 Plate



Pin 7 - Pentode
 Grid No.3,
 Pentode
 Cathode,
 Internal
 Shield
 Pin 8 - Pentode
 Grid No.1
 Pin 9 - Pentode
 Grid No.2

AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

	Triode Unit	Pentode Unit	
PLATE SUPPLY VOLTAGE	550 max.	550 max.	volts
PEAK PLATE VOLTAGE with maximum plate ma. = 0.1 ^b	600 max.	—	volts
PLATE VOLTAGE	300 max.	300 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	—	550 max.	volts
GRID-No.2 VOLTAGE	—	300 max.	volts
CATHODE CURRENT	12 max.	40 max.	ma
GRID-No.2 INPUT	—	1.7 max.	watts
PLATE DISSIPATION	1 max.	4 max.	watts

Typical Operation (Pentode Unit):

As video-output tube

Plate Supply Voltage	170	200	220	volts
Series Plate Resistor	3000	3000	3000	ohms
Grid-No.2 Voltage	170	200	220	volts
Grid-No.1 Voltage	-2	-2.8	-3.3	volts
Transconductance	10400	10000	9700	μ mhos
Plate Current	18	18	18	ma
Grid-No.2 Current	3.2	3.1	3.1	ma

Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance: For fixed-bias operation	1 max.	1 max.	megohm
For cathode-bias operation	3 max.	2 max.	megohms

^a Without external shield.

^b With duty factor = 0.18 maximum and pulse duration = 18 microseconds maximum.

